REQUEST FOR RECONSIDERATION

Claims 1-3, 5, 7, 9, 11-12 and 15-20 remain active in this application.

The claimed invention is directed to a water-based ink.

Applicants wish to thank examiner Shosho for the helpful and courteous discussion held with their U.S. representative on April 11, 2007. At that time, applicants' U.S. representative argued the differences between the cite reference in which the pigment has polymer particles adsorbed on its surface and the claimed invention in which pigment is contained in particles of polymer (i.e. particles of a pigment-containing polymer). The following is intended to expand upon the discussion with the examiner.

Applicants also wish to thank examiner Shosho for allowing claims 1-3, 5, 15 and 18 and for indicating that claim 20 would be allowable.

The rejections of claims 7, 9, 11 and 16 under 35 U.S.C. 102(e) and of claims 12 and 17 under and 35 U.S.C. § 103(a) over Rosano et al U.S. 20003/0045627 are respectfully traversed.

No Disclosure Of A Water-Based Ink In Which Pigment Is Contained In Particles Of Polymer

Rosano et al. fail to disclose or suggest a water-based ink in which pigment is contained in particles of polymer (i.e. particles of a pigment-containing polymer).

Rosano et al. describes an aqueous composite in which polymer particles are attached to the surface of pigment particles (page 1, paragraph [0001]. The polymer particles are adsorbed onto the pigment particles in order to maintain the spacing between pigment particles to be on the order of a few pigment particle diameters, maximizing light scattering (column 1, paragraph [0005]). The polymer particles are merely a spacer to ensure optimum spacing of the pigment particles in order to maximize light scattering. In this configuration

particles of pigment are surrounded by **particles** of polymer but are not in particles of polymer. There is no disclosure of a water-based ink in which pigment is contained **in particles of polymer**.

In contrast, the claimed invention is directed to an aqueous ink composition in which pigment is contained in particles of polymer. The invention of claim 7 has a particle structure in which the pigment is contained within the polymer particle. Accordingly, the claim language of "particles of pigment-containing water-insoluble polymer" is a limitation which is neither disclosed nor suggested in the cited prior art of record.

Moreover, it would not have been obvious to prepare a polymer particle having pigment contained therein as the reference simply uses the polymer particles as a defined spacer between particles of pigment. As such, particles of polymer containing pigment particles therein are not suggested.

No Suggestion Of An Ionic Group At The End Derived From A Chain Transfer Agent

Not only does the reference fail to disclose or suggest a polymer particle which contains pigment, but the reference fails to disclose or suggest a polymer in which a water-insoluble polymer having an ionic group at its end derived from a chain transfer agent, since as used, thioglycolic acid is not incorporated into the polymer.

Rosano et al. describes at paragraph [0041] that thioglycolic acid may be uses as a reducing component when polymerization initiators are used as the oxidizing component of a redox system. Paragraph [0040] describes that persulfates, azo compounds, peroxides etc are also polymerization initiators. For example, persulfates are reacted with thioglycolic acid as follows so that thioglycolic acid cannot be incorporated at a polymer end.

$$S_2O_8^{2-} + SHCH_2COOH \rightarrow SO_4^{-\cdot}\ (\text{initiator}) + HSO_4^- + \tfrac{1}{2}\ (HOOCCH_2S\text{-}SCH_2COOH)$$

The use of thioglycolic acid as a polymerization initiator in a redox system does not suggest a polymer in which the ionic group at its end is derived from a chain transfer agent having an ionic group. Accordingly, the claimed invention which recites the presence of an ionic group at its end being derived form a chain transfer agent is not rendered obvious by the disclosure of this reference.

As the cited reference fails to disclose or suggest a polymer particle which contains pigment nor a polymer having an ionic group at its end derived from a chain transfer agent, the claimed invention is neither anticipated nor rendered obvious by this reference and withdrawal of the rejections under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a) is respectfully requested.

The rejection of claims 7, 9, 11-12 and 19 under 35 U.S.C. 112, second paragraph is obviated by appropriate amendment.

Applicants have now amended claim 7 to recite that the iniferter functions as **a** chain transfer agent and **a** polymerization initiator.

Withdrawal of this ground of rejection is respectfully requested.

Applicants submit that this application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

Richard L. Chinn, Ph.D.
Attorney of Record
Registration No. 34,305

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)
RLC/rac